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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,589	08/03/2001	Michael Wen-Chein Yang	POLY-1194	1853

7590 01/16/2002

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EXAMINER
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HAMILTON, CYNTHIA

ART UNIT	PAPER NUMBER
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1752

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DATE MAILED: 01/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/921,589

Applicant(s)

YANG ET AL.

Examiner

Cynthia Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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### DETAILED ACTION

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-9 have been cancelled. Claims 10-18 have been added.

4. The disclosure is objected to because of the following informalities: On page 17, line three, "Blip" should be ---Slip---.

Appropriate correction is required.

5. The information disclosure statement filed August 3, 2001 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. The references not given nor cited in an application earlier relied on for an earlier effective filing date under 35 U.S.C. 120 in this application as required in 1.98(d) (1) as required if references are not submitted have been struck from the information disclosure statement. They are references AA-AJ, BA-CC, EE-EX, DJ-DO and GB-GG. They have not been considered. They are referenced to applications 09/417,043 and 09/507,840. Reference FG was struck from the list because it did not conform to any known Japanese document citation format, thus could not be identified.

6. Claims 10-18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one

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skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. With respect to instant claims 1-18, the photosensitive element claims requires the presence of "at least one ablation layer which is ablatable by infrared radiation and opaque to non-infrared actinic radiation, ..., the infrared ablation layer comprising: at least one infrared absorbing material ; and at least one binder that is a polyacetal, polyacrylic, polyimide, polybutylene, polycarbonate, polyester, polyethylene, cellulosic polymer, polyphenylene ether, or polyethylene oxide; wherein the ablation layer is ablatable from the surface of the photopolymerizable layer upon exposure to infrared laser radiation." The original specification and claims do not disclose this generic ablation layer drawn to infrared ablation and infrared absorbing material with the exception of showing with Example 3 that polyamide slip containing Uvinul D 50 are not ablatable with a YAG laser which is an infrared laser and that they are with a CO2 laser at an infrared wavelength of 10.6 um. The CO2 laser imaged material is also found to be a poor choice because of the poor resolution obtained indicating damage to the photopolymerizable layer. The laser to be used with respect to the originally filed application "should be such that the laser treatment can ablate the slip film without damage to the photopolymer layer just beneath" as set forth on page 13, lines 9-12. Thus, there is no generic disclosure to the instant element because there is no generic disclosure to using an infrared ablatable layer or such a layer with an infrared absorbing material. Further, there is no disclosure made to a photosensitive element without the presence of a dopant having a high extinction coefficient in the ultraviolet range. The broader "non-infrared actinic radiation" is not fully supported by the original disclosure and claims. Finally, the only support for a layer that could be ablated by infrared laser is that in Example 3 specific to a polyamide. The instant binders for

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the infrared ablatable layer do not have a polyamide listed as a choice. With respect to instant claim 13, there is no support for a photopolymerizable layer with both the materials of claim 12 and the materials of claim 13 present simultaneously. There is no disclosure to an infrared ablatable layer with a hydroxypropylcellulose binder present either as found in instant claim 15.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States,

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 10, 14-15, 17, 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott paper Company (GB 1 492 070). In Example IV of Scott Paper Company is disclosed the instant element of applicant's claims 10, 14-15, 17-18 wherein the cellulosic binder is nitrocellulose, the infrared absorber is aluminum powder present in 10.4 wt % and the layer imaged is referred to as photopolymerized in Example . The same negative working composition is used in all the Examples of Scott Paper Company. The laser used is a YAG laser which is cited by applicants on page 18, liens 1-5, having a wavelength of exposure of 1.06 um, ie. 1,060 nm, which is in the infrared range. The infrared absorbing material is held inherently nonmigratory and the element of Scott is held ablatable at 10.6 um which is in the infrared range. Example V of Scott also reads on the instant element of claim 10.

10. Claims 10-12, 14-18 are rejected under 35 U.S.C. 102(e) or (a) as being anticipated by Fan (6,238,837 B1) (and EP equivalent EP 0741330 A1) and optionally further evidenced by Toda et al (4,045,231), Heinz et al (4,430,417) and Chen (4,323,636) cited by Fan in col. 4, lines 26-29, to disclose block polymers to be used by Fan. Fan (6,238,837 B1) cited by applicants has a filing date of May 1, 1995 which is before the filing date of the oldest effective filing date of the same application, i.e. 08/479,339 filed June 7, 1995. However, the oldest effective filing date is June 25, 1993 drawn to a continuation-in-part of US sn 08/082,689. The examiner has read this oldest application and found the same data supporting an IR ablatable layer in both the current application and the oldest application. It is a series of tests showing that the YAG laser does not ablate the instant layers but the CO2 laser does with specific polyamide layers, but also

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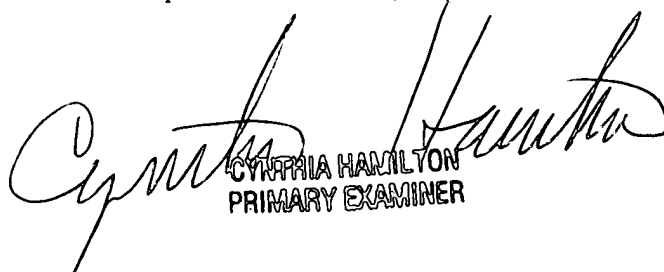
damages the underlying polymerizable layer. However, the CO2 laser does work. However, the instant claims 10-18 are the only support found for the breadth of scope now claimed by applicants and that date of claim submission is August 3, 2001. Thus, Fan is seen as prior art with respect to these claims wherein support is not found in the applications as filed. Fan anticipates the instant element wherein butadiene-styrene block polymers are listed as one choice of binder in the photopolymerizable layer and triblocks such as those of Heinz et al in col. One and those of Chen in col. 1 inclusive of styrene-isoprene and styrene-butadiene di and tri block elastomers. The examiner notes the element claimed by Fan is limited to the presence of a monomer as well as an elastomeric binder. However, the process of imaging with an infrared ablatable layer comprised of a binder that can be a polyamide or hydroxypropylcellulose is disclosed in the examples. In Fan, see particularly Abstract, col. 2, lines 8-10, 23-28, col. 3, lines 48-65, col. 4, lines 20-31, 55-61, col. 5, lines 65-67, col. 6, lines 1-35, col. 7, lines 55-63, col. 9, lines 10-col. 10, lines 48, col. 12, lines 8-col. 13, lines 40, Examples and claims. Thus, with respect to instant claims 10-12, 14-18, the elements of Fan anticipate the instant elements and are held to inherently absorb infrared radiation at a wavelength of 10.6 um.

*Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cynthia Hamilton whose telephone number is (703) 308-3626. The examiner can normally be reached on Monday-Friday, 9:30 am to 5:00 pm.*

*If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on (703) 308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.*

*Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305- 0661.*

C. Hamilton  
01-14-02

  
CYNTHIA HAMILTON  
PRIMARY EXAMINER